NAMIREMBE DIOCESE

DEPARTMENT OF EDUCATION

COUHEIA MOCK EXAMINATION 2024

PRIMARY SEVEN

MATHEMATICS

Time Allowed : 2 Hours 30 Minutes

Index No.

Random No.						Personal No.		

Pupil's Name:.....

School Name:.....

Archdeaconry:,.....

Read the following instructions carefully:

1. This paper has **two** sections: **A** and **B.** Section **A** has **20** questions and section **B** has **12** questions. The paper has 12 pages altogether.

2. Answer all the questions. All answers to both sections **A** and **B** must be written in the spaces provided.

3. **All** answers must be written using a blue or black ball point pen or ink. Any work written in pencil other than graphs, pictures and diagrams will **not** be marked.

4. Unnecessary changes of work may lead to **loss** of marks.

5. Any handwriting that cannot easily be read may lead to **loss** of marks.

6. Do **not** fill anything in the boxes indicated: **"For examiners' Use only"** and those inside the question paper

FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S SIGN
1-5		
6-10		
11-15		
16-20		
21-22		
23-24		
25-26		
27-28		
29-30		
31-32		
TOTAL		

SECTION A : 40 MARKS

Answer all the questions in this section.

Question 1 to 20 carry two marks each.

1. Work out : $46 \div 2$

2. Simplify : b-3b +4b

3. Write CDLXV in Hindu – Arabic numerals.

4. Given that W= { Sun, Mon, Tue, Wed}

   Find the number of subjects in set W.

5. Find the next number in the sequence:

   3, 8, 5, 10, 7, ____.

6. Simplify : $\frac{2}{9} \div \frac{1}{3}$

7. Using a ruler, a pencil and a pair of compases only, construct an angle of 105^0 in the space below.

8. Work out : $1110_{two} + 111_{two}$

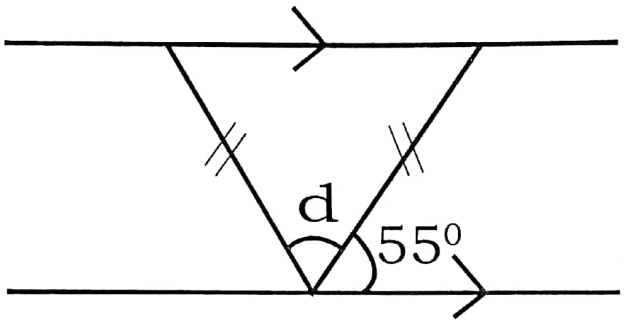
9. Find the square root of $5\frac{1}{16}$

10. Change 750grams into kilograms.

11. Solve : $2m - 3 = 2$ (finite 7)

12. A bus travels at an average speed of 110 km./h for 1 hour 24 minutes. Find the distance covered.

13. In the figure below, find the size of angle d.



14. If $\frac{3}{4}$ kg of sugar cost shs. 3,900, find the cost of $3\frac{1}{2}$ kg

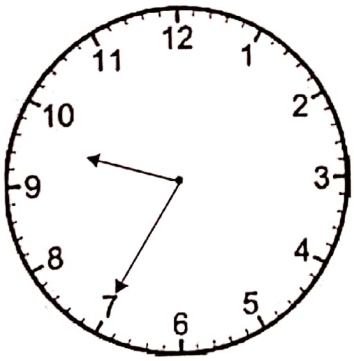
15. Given that a = -3, b = 1 and c = -4, find the value of $\frac{a\,c}{b^2 - a\,c}$

Turn Over.

16. Find the median of the following numbers :
9, 2, 7, 0, 5, 7

17. The price of a bar of soap was sh. 4.500. It was later increased by 40%. Find the new price of the bar of soap.

18. Write the afternoon time shown on the clock face



_____

19. The total number of blue and black pen in a bag is 24. If the probability of picking a black pen is $\frac{3}{8}$, how many blue pens are in the bag?

20. A stretch of a road is 450m long. Trees are planted in a straight line along the road at intervals of 9m from each other. Find the number of trees planted.

SECTION B : 60 MARKS

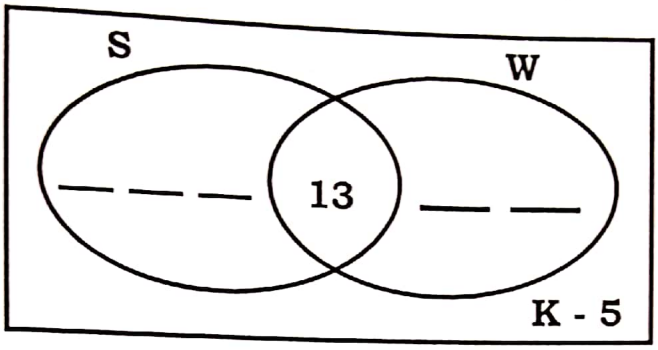
Answer all the questions in this section.
Marks for each question are indicated in brackets.

21. (a) Simplify : $\frac{4m^3 \times 6m^6}{8m^5}$ **(2marks)**

(b) Expand 948.063 using powers of 10. **(2marks)**

22. In a class of 69 pupils, 48 drink soda (s), (k + 12) pupils drink mineral water (w) only, 13 drink both soda and mineral water while (k - 5) pupils drink neither of the drinks.

(a) Complete the Venn diagram below using the information above.



(2marks)

(b) Find one value of **K** **(2marks)**

(c) How many pupils drink mineral water? **(01 Marks)**

23. The rates at which a bank pays and sells different foreign currencies are given in the table below. Study and use it to answer the questions that follows.

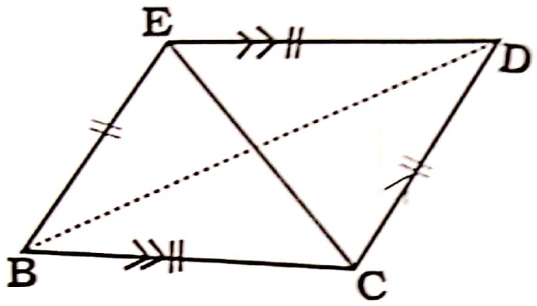
Currency	Buying rate	Selling rate
1 US dollar ($)	Ug. sh. 3,600	Ugsh. 3,700
1 Pound sterling (£)	Ug sh. 4,500	Ugsh. 4,700
1 Kenya shilling (Ksh)	Ugsh, 35	Ugsh, 36

(a) If Apolot has Ugsh. 925,000, how much money in Us dollars will she get from the bank? **(2marks)**

(b) If kapere has Ksh. 37,600, how many pounds sterling can he get from the bank? **(3marks)**

Turn Over.

24. The perimeter of the rhombus BCDE below is 104 cm and diagonal EC = 20cm.



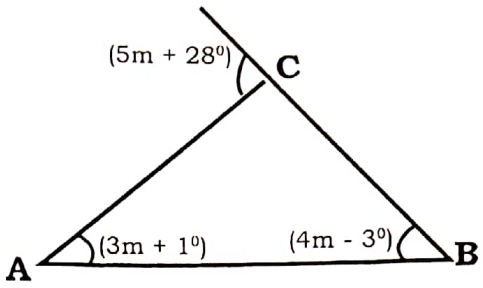
(a) Find the length of diagonal BD. (4marks)

(b) Calculate the area of rhombus BCDE. (2marks)

25. (a) Write $\frac{8}{11}$ as a recurring decimal. (2marks)

(b) Work out : $\frac{0.759 - 0.003}{0.9 \times 1.4}$ (3marks)

26. Study the figure below and use it to answer the questions that follows



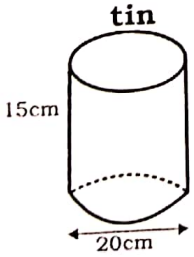
(a) Find the value of m. **(3marks)**

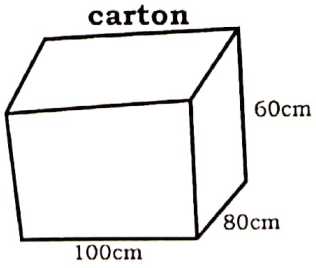
(b) Calculate the size of angle ACB. **(2marks)**

27. A rabbit costs half as much as a chicken. The chicken costs one third as mush as a turkey. If the total cost of the three animals is sh. 180,000, find the cost of 5 rabbits.

(5marks)

28. Cylindrical tins of jam each 15cm high and of diameter 20cm are to be packed standing upright in a rectangular carton 100cm long, 80cm wide and 60cm high.

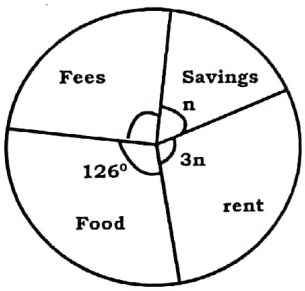




(a) How many tins can be packed in the carton? (2marks)

(b) Calculate the volume of the space that will be remaining after the tins have been packed into the carton. (take $\pi = 3.14$)
(3marks)

29. The pie chart below shows the expenses of a family. Study and use it to answer questions that follows.



(a) Find the value of n. **(2marks)**

(b) If the family spends sh. 216,000 more on rent than fees, what is the family's total income? **(3marks)**

30. Joan spends $\frac{1}{3}$ of her monthly salary on food, $\frac{1}{4}$ on rent, $\frac{3}{10}$ of the remainder on medical care and saves sh. 210,000. What is her monthly salary?

(5marks)

31. Town A is 180km from town B. A car left town A for town B at 8:55a.m and travelled at a steady speed of 80km per hour.

(a) At what time did the car reach town B? **(2marks)**

(b) If the car left town B at 12:15p.m and reached town A at 2:15pm., calculate the speed of the car. **(3marks)**

32. A motorist left village P and drove 60km east wards to village Q. She then drove 50km on a bearing of 230^0 from village Q to village R.

(a) Draw a sketch to show the motorist's journey. **(1mark)**

(b) Using a scale of 1cm to represent 10km, draw an accurate diagram to show the motorist's journey. **(3marks)**

(c) Find the bearing of village R from village P. **(1mark)**

END